OKI

MICROLINE 3990 FLATBED Cut-Sheet Feeder

Maintenance Manual

2001-04-02 Rev.1

PREFACE

This document describes the maintenance procedures for maintenance administrators for maintaining the cut-sheet feeder installed as an option in MICROLINE 3990 FLATBED.

For handling or operating methods of the device, please read the Instruction Manual.

For information of the printer sections, please refer to the Maintenance Manual or Instruction Manual for the printer.

CAUTION!

- Copying the entire document or a portion of the document without permission is prohibited.
- The contents of this document subject to change without notice due to changes applied to the device or to refine the instructions for the device.

CONTENTS

1. SUMMARY 4
1.1 Functions 4
1.2 Appearance and Name of Parts 4

2. OPERATIONAL INSTRUCTIONS 5
2.1 Drive Mechanism 5
2.2 Hopper Mechanism 5

3. MAINTENANCE TOOLS 6

4. REPLACING PARTS 7
4.1 Precautions for Replacing Parts 7
4.2 Procedures for Removing and Installing Parts 8
4.2.1 Side cover 8
4.2.2 Hopper roller 9
4.2.3 Brake shoe and guide spring 10

5. MAINTENANCE PARTS AND PERIODICAL REPLACEMENT PARTS 11
5.1 Maintenance Parts 11
5.2 Periodical Replacement Parts 11

6. CONFIGURATION PARTS TABLE 12
6.1 Overall Assembly Figure (41069707) 13
6.2 Cut-Sheet Feeder (41357804) 13

1. SUMMARY

1.1 Functions

The cut-sheet feeder, installed in the front section of the printer, feeds single sheets to the printer automatically by the rotation of the stepping motor in the printer. The main features are indicated below.

(1) Paper size

Standard paper:	Width :	100 ~ 364mm
	Length :	100 ~ 364mm
Postcard:	100mm x 148mm	

(2) Hopper capacity

Single sheet (excluding B4 size) 16mm or less (equivalent to 200 sheets of ream weight 55kg paper)

Multipart sheet, B4 size single sheet 10mm or less

1.2 Appearance and Name of Parts

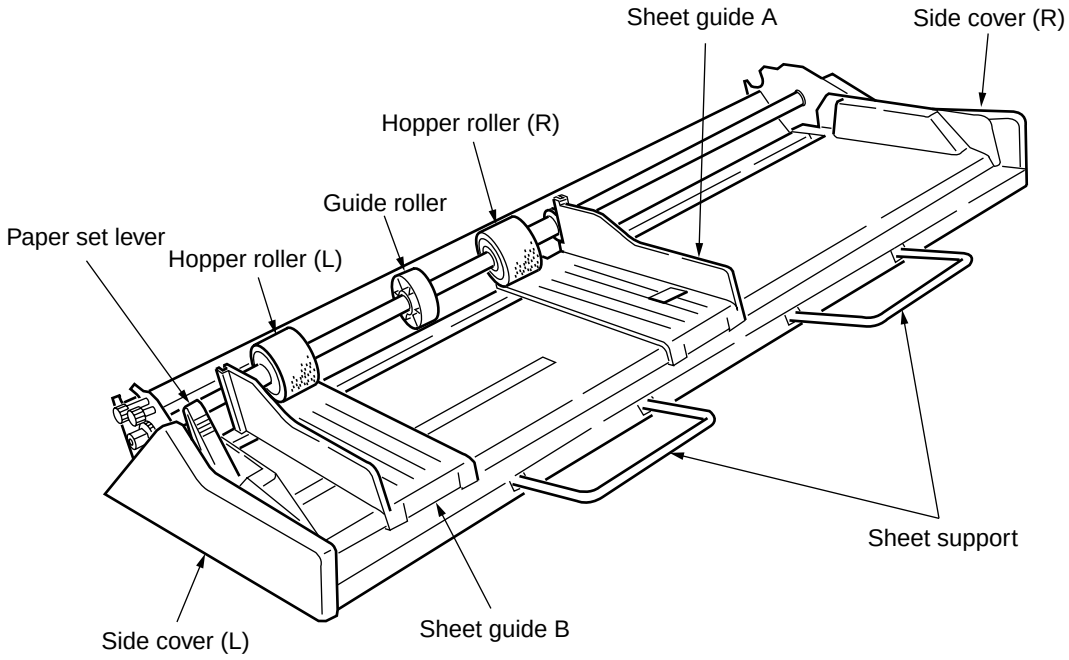


Diagram 1.1 Appearance and Name of Parts

2. OPERATIONAL INSTRUCTIONS

2.1 Drive Mechanism

The gears of the hopper drive and hopper roller will mesh when the cut-sheet feeder is installed to the printer.

The printer rotates the stepping motor when receiving a signal from the control section, transmits the power to the hopper roller gear and rotates the hopper roller.

The rotation of the hopper roller send paper out from the hopper section and feeds it into the printer via the feed roller.

The paper is then controlled by the LF motor of the printer and fed.

2.2 Hopper Mechanism

The hopper section automatically feeds the set paper one by one to the printer.

The paper supply slot opens when the paper set lever is pulled toward the operator, enabling paper to be set. After papers are set, they will be ready to be fed by pulling the paper set lever back.

Then, the stepping motor will initiate the paper feed operation, and only one sheet will be fed by the friction from the brake shoe.

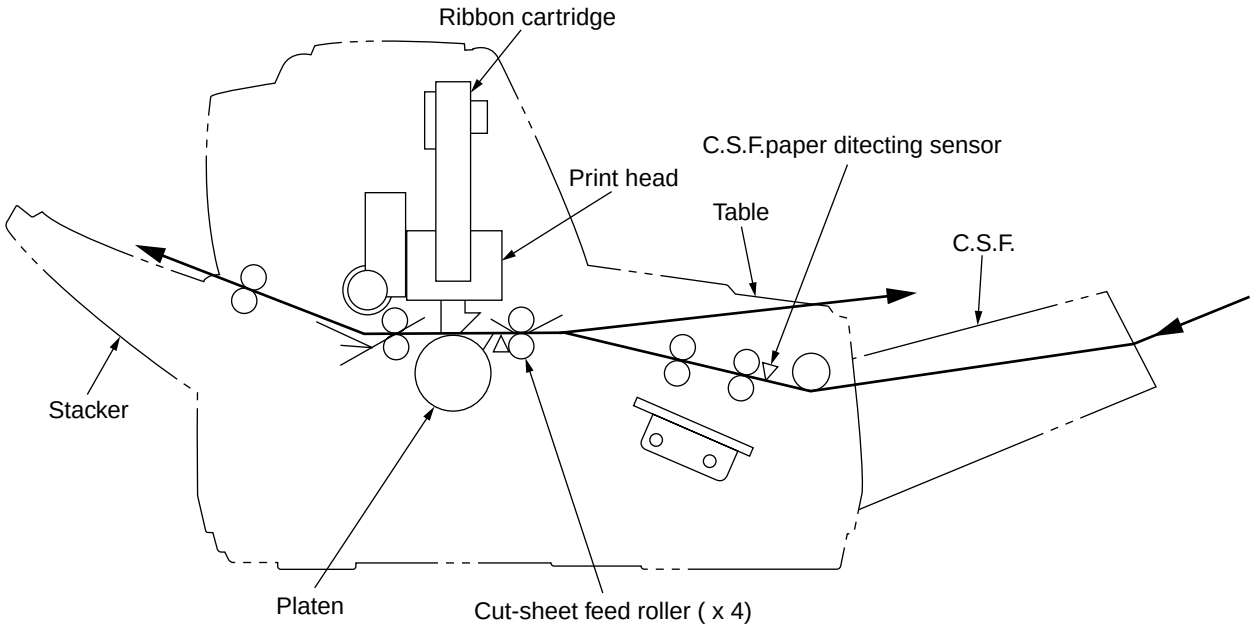


Diagram 2-1 Summary of mechanism

3. MAINTENANCE TOOLS

The following tools are required for disassembling or assembling the cut-sheet feeder or when replacing maintenance parts.

No.	Maintenance Tools	Qty.	Application	Remarks
1	No.2-200 Phillips screwdriver	1	3-4mm screws	
2	3-100 screwdriver	1		
3	No.3 round pliers	1		
4	No.1-100 Phillips screwdriver	1	2-2.5mm screws	
5	No.5 nippers	1		
6	5.5mm wrench	1		

4. REPLACING PARTS

This chapter explains the procedures for disassembling and assembling various units. The procedures for disassembling are described, therefore, the procedures for assembling should basically be performed in the opposite sequence to disassembling.

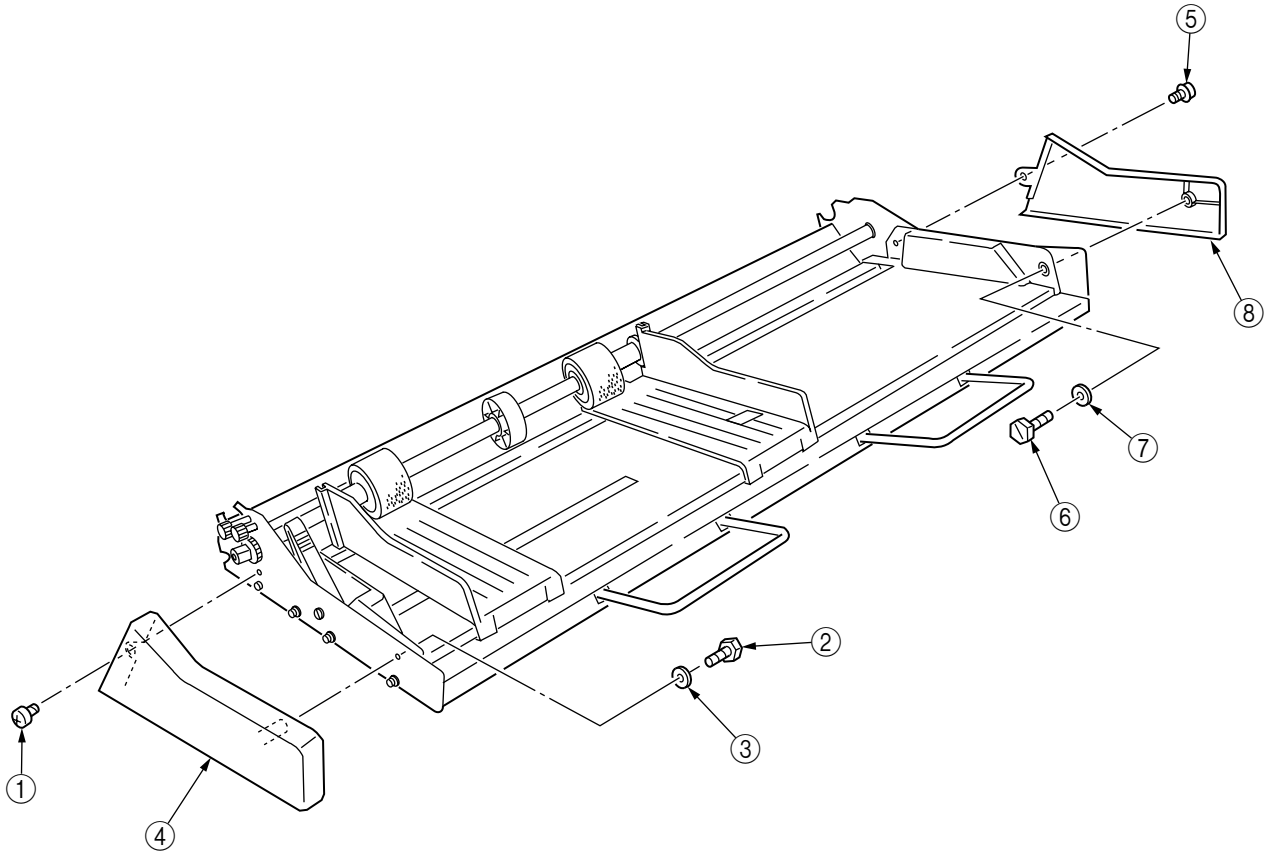
4.1 Precautions for Replacing Parts

(1) Disassembling and assembling must be performed after turning OFF the power of the printer and removing the cut-sheet feeder from the printer.
(2) Do not disassemble if the cut-sheet feeder is operating normally.
(3) Determine the range of disassembly according to the objective, and do not disassemble more than required.
(4) Tools that are used should be those that are specified.
(5) Disassemble in the specified order, otherwise, it may apply damages to the parts.
(6) Small parts such as screws and collars are easy to lose, therefore, they should be reattached temporarily in their original positions.

4.2 Procedures for Removing and Installing Parts

4.2.1 Side cover

(1) Remove screws ①, ②, and collar ③, then remove side cover (L) ④.
(2) Remove screws ⑤, ⑥, and collar ⑦, then remove side cover (R) ⑧.
(3) Reinstall the side cover in the opposite sequence to removal.



4.2.2 Hopper roller

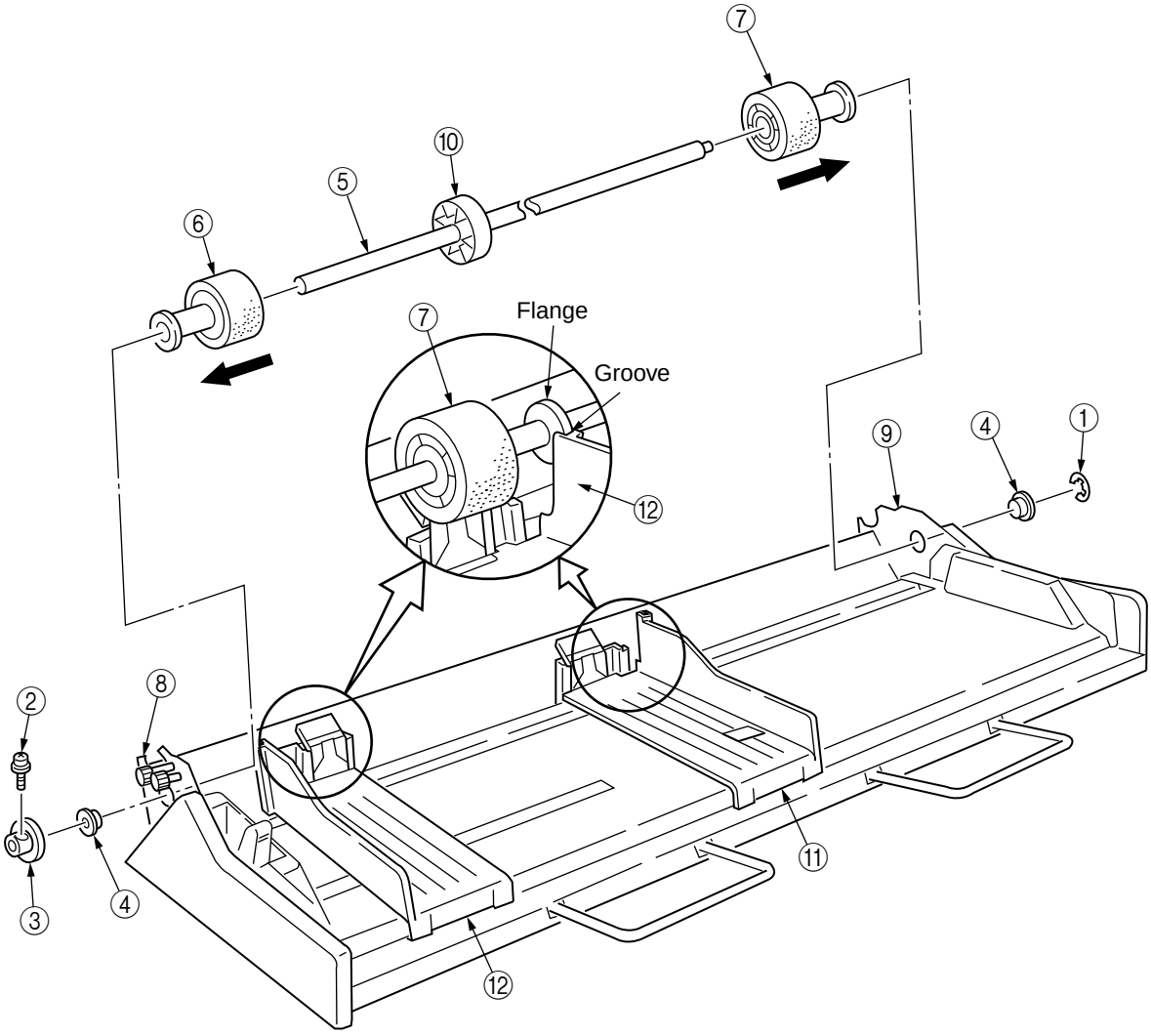
(1) Remove E-shaped washer ①.
(2) Remove screw ②, then remove hopper gear ③.
(3) Remove two collars ④ on the left and right sides.
(4) Remove hopper shaft ⑤ from side plates (L) ⑥ and (R) ⑦ with hopper rollers (L) ⑧ and (R) ⑨ attached.
(5) Remove hopper rollers (L) ⑥ and (R) ⑦ from hopper shaft ⑤.

CAUTION! Be careful not to remove guide roller ⑩ from hopper shaft ⑤.

(6) Reinstall the hopper roller in the opposite sequence to removal.

[Precautions for reinstalling]

1. Hopper rollers (L) ⑥ and (R) ⑦ are distinguished by the color of bearings, so be sure to check the color to avoid installing them on wrong sides. (Right side: light-blue, Left side: milky-white)
2. Reinstall hopper ⑤ after attaching the flange portion of hopper rollers (L) ⑥ and (R) ⑦ in the groove of sheet guides A ⑪ and B ⑫.

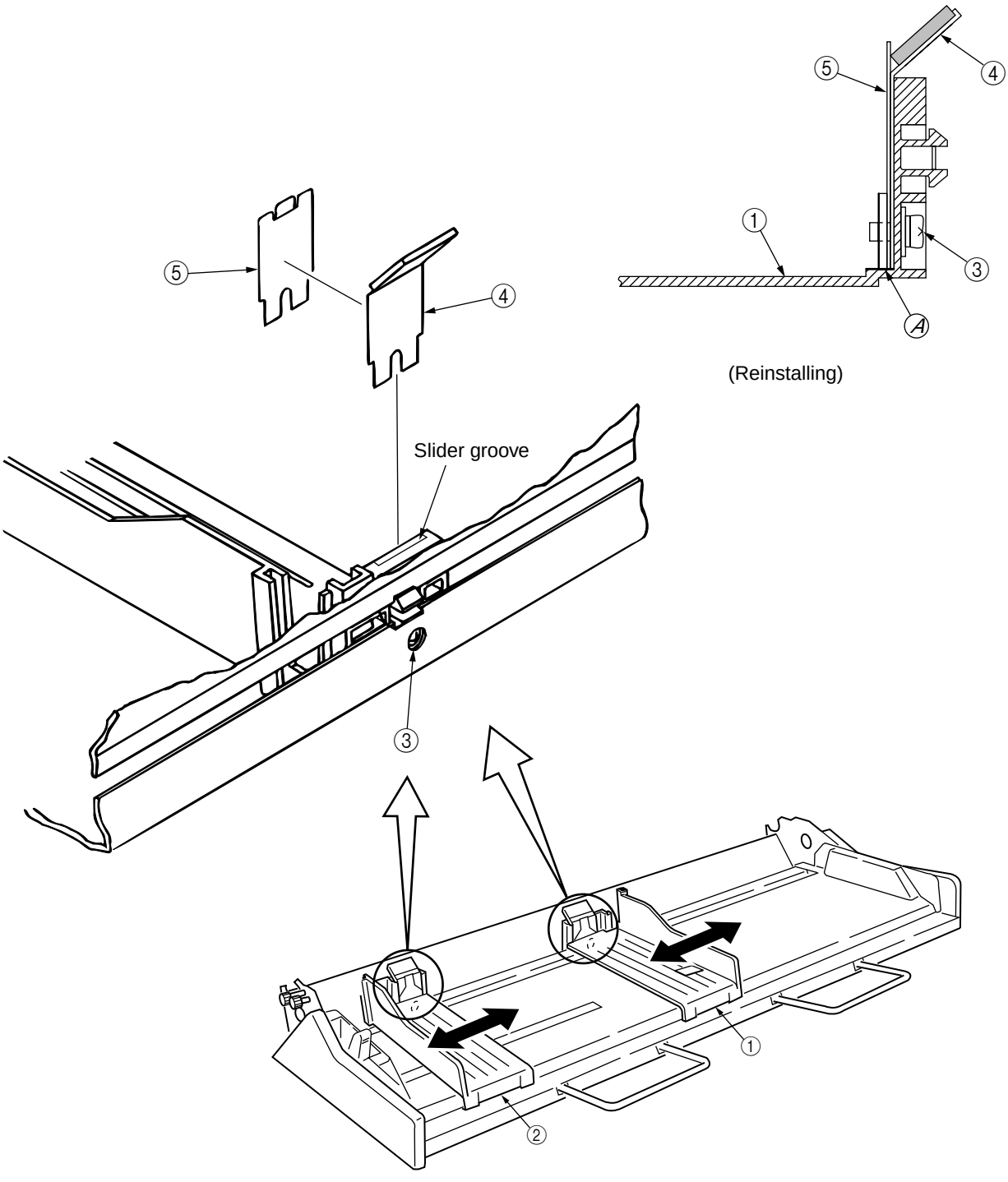


4.2.3 Brake shoe and guide spring

(1) Remove the hopper roller. (See Chapter 4.2.2)
(2) Slide sheet guides ① and ② to the hole of the base frame.
(3) Loosen screw ③, then pull out brake shoe ④ and guide spring ⑤.
(4) Reinstall the brake shoe and guide spring in the opposite sequence to removal.

[Precautions for reinstalling]

Secure screw ③ after setting brake shoe ④ and guide spring ⑤ against section Ⓐ below the slider and pushing them into the slider groove.



5. MAINTENANCE PARTS AND PERIODICAL REPLACEMENT PARTS

5.1 Maintenance Parts

Maintenance parts after using 100 cut-sheet feeder in one year are listed in the table below.

(1) Condition of usage
Estimated time of actual operation: Set as 2hrs./day, 50hrs./month.

(2) Level of necessity
A: The amount must be increased according to the increase in the amount of used units.
B: The amount does not necessarily have to be increased even when the amount of used units increases.
C: Preparation is desirable.

Table 5-1 Maintenance Parts

No.	Part	Part.No.	Amount of usage/unit	No.of maintenance parts	Necessity
1	Hopper roller (L)	4PB4044-2560G001	1	1	A
2	Hopper roller (R)	4PB4044-2560G002	1	1	A
3	Brake shoe	41358201	2	2	A
4	Guide spring	4PP4044-2801G001	2	2	B

5.2 Periodical Replacement Parts

The following parts should be replace after a specified period of time.

Table 5-2 Periodical Replacement Parts

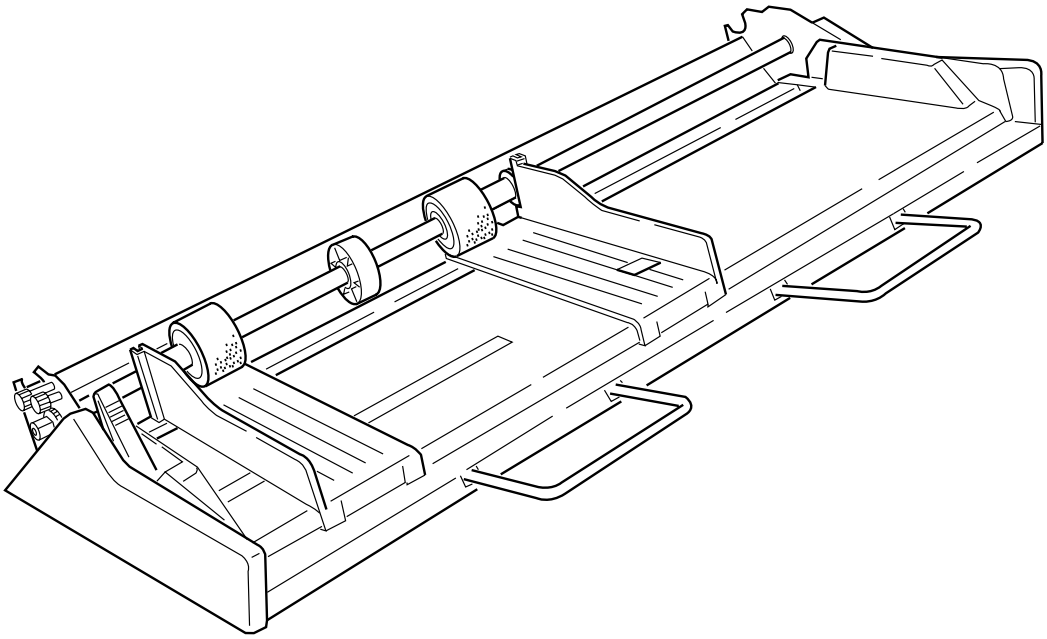
No.	Part	Part.No.	Amount of usage/unit
1	Hopper roller (L)	4PB4044-2560G001	The earlier of either using the part for 3 years or feeding 100,000 sheets.
2	Hopper roller (R)	4PB4044-2560G002	The earlier of either using the part for 3 years or feeding 100,000 sheets.
3	Brake shoe	41358201	The earlier of either using the part for 3 years or feeding 100,000 sheets.

6. CONFIGURATION PARTS TABLE

The main configuration parts of the cut-sheet feeder are described below.

Name	Parts No.
Overall assembly figure	41069707
└— Cut-sheet feeder	41357804

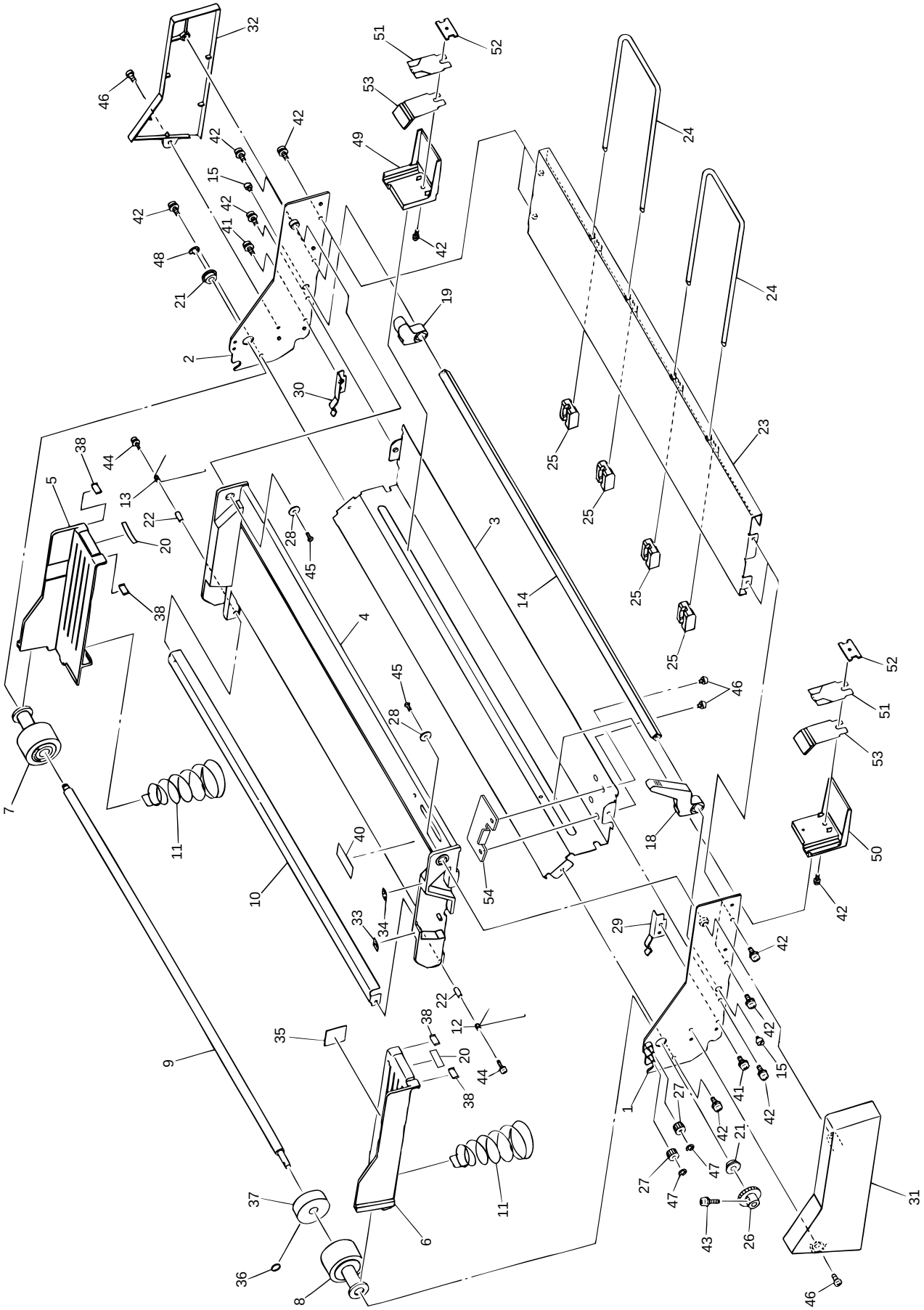
6.1 Overall Assembly Figure (41069707)



Overall Assembly Figure (41069706)

No.	Mark	Parts No.	Name/Rating	Qty.	Remarks
1		41357804	Cut-sheet feeder	1	

6.2 Cut-Sheet Feeder (41357804)



Cut-Sheet Feeder (41357804)(1/2)

No.	Mark	Parts No.	Name/Rating	Qty.	Remarks
1		4PP4044-2719G001	Side frame (L) assembly	1	
2		4PP4044-2723G001	Side frame (R) assembly	1	
3		3PP4044-2725P001	Base frame	1	
4		3PP4044-3289P010	Base plate	1	
5		41361701	Sheet guide A (paste)	1	
6		4PP4044-2558G008	Sheet guide B (paste)	1	
7		4PB4044-2560G001	Hopper roller (L)	1	
8		4PB4044-2560G002	Hopper roller (R)	1	
9		4PP4043-2822P001	Hopper shaft	1	
10		4PP4044-2562P001	Pressure plate	1	
11		4PB4044-2566P001	Pressure spring	2	
12		4PP4044-2727P001	Sub spring (L)	1	
13		4PP4044-2728P001	Sub spring (R)	1	
14		4PB4043-2922P001	Rear shaft	1	
15		4PP4043-1849P001	Shoulder screw	2	
16					
17					
18		4PP4043-1885P005	Lock lever (L)	1	
19		3PP4043-1886P005	Lock lever (R)	1	
20		4PP4043-2838P001	Friction spring	2	
21		4PP4043-1740P001	Collar	2	
22		4PP4043-2918P002	Collar	2	
23		3PP4044-2738P001	Beam bracket	1	
24		4PP4044-2739P001	Sub table	2	
25		4PP4044-2271P001	Sub table support	4	
26		4PP4044-2740P001	Hopper gear	1	
27		4PP4044-2741P001	Idle gear	2	
28		5KX-15086-1A	Collar	2	L=1
29		4PP4044-2742P001	Clamp spring (L)	1	
30		4PP4044-2743P001	Clamp spring (R)	1	

Cut-Sheet Feeder (41357804)(2/2)

No.	Mark	Parts No.	Name/Rating	Qty.	Remarks
31		41175201	Side cover (L)	1	
32		41175101	Side cover (R)	1	
33		4PB4012-5670P001	Handling operation plate (set)	1	
34		4PB4012-5671P001	Handling operation plate (reset)	1	
35		4PB4012-5753P001	Handling operation plate	1	
36		4PB4044-2772P001	Spring	1	
37		4PP4044-2773P001	Guide roller	1	
38		4PP4044-2783P001	Friction plate	4	
39		41422501	Bracket	1	
40		41786701	Label indicator	1	
41		PSWW3-6C	Screw	2	
42		PSW2W3-6C	Screw	10	
43		PSW2W2.5-10C	Screw	1	
44		PSW2W2.5-14C	Screw	2	
45		B3-10G	Bolt	2	
46		D3-4G	Screw	4	
47		RE2-SK	E-shaped washer	2	
48		RE4-SK	E-shaped washer	1	
49		3PP4044-2576P001	Slider A	1	
50		3PP4044-2570P001	Slider B	1	
51		4PP4044-2801G001	Guide spring	2	
52		4PP4044-2694P001	Plate nut	2	
53		41358201	Brake shoe	2	
54		41422501	Sheet-cut stopper	2	
55		40015603	Instruction plate	1	